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ABSTRACT

The job announcements from August, 1992 through June, 1993 of "The Chronicle of Higher Education" were analyzed. Among the conclusions were: 112 different positions were advertised with science education being part of the job description. A total of 32 were exclusively science education, 53 were joint appointments with education (teaching other education courses), and 23 were joint appointments with a science discipline. Slightly more than 60% were tenure track positions, more than 20% did not identify if they were tenure track. Almost 33% of the announcements were for faculty to teach elementary science methods or graduate science education courses. Slightly more than 50% of the announcements identified supervision of student teachers responsibility and 33% expect publications. Almost 54% of the announcements specify dissertation is to be completed. Regarding rank, 33% specified assistant professor, 20% were assistant-associate, and 20% did not specify. (PR)

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ANALYSIS OF COLLEGE SCIENCE EDUCATION POSITION ANNOUNCEMENTS

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Analysis of College Science Education Position Announcements

The purpose of a position announcement is to attract the interest of the best candidates, in the hope that one of these will be the most suited for the position. According to Waggaman (1983), the candidate would be the individual who would stay eight years or more and develop a productive career that benefits both the individual and the institution. Over the past three decades, the recruitment process in higher education has changed. In 1958, Caplow and McGill noted that there were typically fewer than 10 applicants for a faculty position. At that time, usually the chair only went to professional meetings to hire faculty. A personal interview of the candidate was the exception, rather than the rule; relying on second hand reports about the candidate was the practice.

Caplow and McGill also commented that a candidate's education at or employment by a prestigious institution, and perceived professional compatibility (fitting in) were the two most important hiring criteria. Other reasons (i.e. "he played the recorder, that was the reason we hired him", p. 165) were also cited as playing a role in the hiring process.

In 1988, Burke conducted a replication of Caplow and McGill's study. He reported that codified procedures, including open advertising, are in use. Moreover, faculty members are examining credentials more carefully than during the 1950's. However, there was no change regarding screening criteria (letters of recommendation, research, publications, etc.) and weight of personal contacts in obtaining positions. This reaffirmed Burke's 1986 finding that the authority of letter of recommendation continued to be especially important in hiring new research faculty. Burke also found that a greater number of full professors were being searched for than were in 1958.

How as a search committee do you get the best candidate pool? Kaplowitz (1986), while noting that there is neither a perfect candidate nor perfect position, provided a detailed procedure for administrators to utilize in conducting a successful job search. Marcus (1977) recommended that advertisement should involve disciplinary/professional associations and The Chronicle of Higher Education (TCHE).

TCHE is considered the best source of vacancy information. Burke's 1988 study indicated that the quantity of openings was increasing. At the same time,

the applicant pool was also growing due to "itinerant scholars" (individuals unsuccessful in finding permanent positions) and assistant professors trying to be upwardly mobile. An additional increase in applicants and positions could be caused by the development of research programs in schools that were formerly less research-oriented. Burke also concluded that the detailing of an offered position varied by department size.; that larger departments tended to advertise less well defined openings at all levels, while smaller departments were more precise with their position descriptions, except for those searching at the senior level.

The purpose of this study was to analyze the types of announcements in TCHE for science education teaching positions at higher education institutions in the United States. A review of the literature found no previous study investigating science education position announcements.

Methodology

The job announcements from August, 1992, through June, 1993, of TCHE were read weekly. To locate the announcements, the display and alphabetical listing by responsibility (non-display) for biology, chemistry, education, geology, physics, and science education with specific attributes noted for each announcement. These included state, tenure track or not, teaching responsibility (elementary, middle, high school and/or graduate), appointment (science education only, joint with science, or joint with education), responsibilities (supervising student teachers, inservice, grants, publication, and national visibility), degree completed or not, and rank. For analysis, the states were grouped by NSTA districts. Data were analyzed by MYSTAT.

Findings

There were a total of 112 different positions advertised with science education being part of the job description. A total of 36 positions were exclusively science education, 53 were joint appointments with education (teach other education courses), and 23 were joint appointments with a science discipline. Slightly more than 60% were tenure track positions, more than 20% not identified whether tenure track or not. Almost 33% of the announcements were for faculty to teach elementary science methods or graduate science

education courses. Slightly more than 50% of the announcements identified supervision of student teachers responsibility and 33% expect publications. Almost 54% of the announcements specify dissertation is to be completed. In addition, 54% of the announcements were displays (Table 1). Regarding rank, 33% specified assistant professor, 20% were assistant-associate and 20% did not specify. The NSTA districts with the greatest number of positions were 2, 6, 7, 5, and 12 (Table 2).

A chi square analysis was conducted. There were significant differences between number of announcements by NSTA districts, tenure or not, middle school methods, assignment (science education vs. joint appointment), previous teaching experience, dissertation completed and display (Table 3).

Discussion

Science education announcements seem to follow the pattern that Burke (1988) described for larger institutions by not being explicit. This pattern was obvious in the professional responsibility category. With there being 112 advertised science education positions, this seems to indicate that it is a "buyer's market."

Job applicants should be aware that the job announcement is searching for the ideal candidate. If potential applicants believe they meet the position's major responsibilities, then apply. At that point, the search committee needs to determine appropriateness. Based upon this study, institutions are attempting to maintain flexibility by lacking explicitness in their announcements. All applicants need to read both the display and non-display announcements. Even though only 1/3 of the announcements indicated publications as a component of the position, TCHE (1993) reported that more than 55% of all faculty had published two or more articles in the past two years.

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Table 1
Demographic Profile

	Yes		No		Not specified	
	n	%	n	%	n	%
Tenure track *	74	66	12	11	26	23
Method Responsibility in Science Ed						
Elementary	45	40	31	28	36	32
Middle School	24	21	51	46	37	33
High School	29	26	46	41	37	33
Graduate	42	38	44	39	26	23
Assignment						
Joint with science	23	21				
Joint with education	53	47				
Science education only	36	32				
Professional responsibilities						
Supervising student teachers	57	51	1	1	54	48
Inservice	22	20	0	-	90	80
Grants	28	25	1	1	83	74
Publications	37	33	2	2	73	65
National visibility	5	4	2	2	105	94
Dissertation completed	62	55	20	18	30	27
Display	61	54	51	46		

Table 2

Rank of Position by NSTA Districts

NSTA District	Total	Full	Associate	Assistant	Not Specified	Asso-Full	Asst./ Assoc.	Instructor/ Lecturer
	n	n	n	n	n	n	n	n
1	7	0	0	1	4	0	1	1
2	19	0	0	10	2	3	2	2
3	7	0	0	3	2	0	2	0
4	7	0	0	4	2	0	0	1
5	12	0	0	3	6	0	3	0
6	14	1	0	6	2	0	4	1
7	13	0	1	3	3	1	4	1
8	7	0	0	3	2	1	0	1
9	6	1	0	3	0	0	2	0
10	5	0	0	2	1	1	1	0
11	4	0	0	2	0	0	1	1
12	12	2	0	4	3	0	2	1
Total	112	4 (4%)	1 (1%)	44 (39.2%)	26 (23%)	6 (5%)	22 (20%)	8 (7%)

Table 3

Chi-square Analysis

	x^2	p
Tenure	55.21	.000
Methods responsibilities	2.67	.264
Elementary		
Middle School	9.95	.007
High School	3.99	.143
Graduate	5.54	.063
Assignment (joint appointment or not)	12.24	.002
Previous teaching experience		
Elementary	79.14	.000
Middle	67.06	.000
Secondary	59.54	.000
Dissertation completed	20.48	.000
Display	74.84	.000